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EXAMINER				
KHOSRAVIANI, ARMAN				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/563,880

**Applicant(s)**

NAITO ET AL.

**Examiner**

Arman Khosraviani

**Art Unit**

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) 1-15 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-10, 16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 09 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/SF/08)  
Paper No(s)/Mail Date 1/9/2006, 3/30/2006, 8/15/2007  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, Claims 1-10 and 16, drawn to a jig, classified in Class 118, subclass 434.

Group II, Claims 11-15, drawn to process for making capacitors, classified in Class 29, subclass 25.03.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The inventions are distinct and independent, each from the other because of the following reasons: The inventions are distinct since, for example, a jig can be used to form a resistor, and a capacitor can be made with sputtering. Because these inventions are distinct for the reasons given above and as shown by the above different classifications, the fields of search are not co-extensive and separate examination would be required, restriction for examination purposes as indicated is proper..

2. During a telephone conversation with Abraham Rosner on June 15, 2008 a provisional election was made without traverse to prosecute the invention of group I, claims 1-10 and 16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product

claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: (See MPEP Ch. 2141)

- a. Determining the scope and contents of the prior art;
- b. Ascertaining the differences between the prior art and the claims in issue;
- c. Resolving the level of ordinary skill in the pertinent art; and
- d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (US 20030133256), in view of Yoshimura (US 4,864,472), and in further view of Kamigawa et al. (US 6,139,592).

Regarding claim 1, Yoshida teaches (figures 8 and 2-7, ¶¶ 37-41) a jig for producing capacitors, which is used for forming a semiconductor layer 3 by means of energization on two or more electric conductors 10 each having formed on the surface thereof a dielectric layer 2, but fails to explicitly show the jig comprising two or more current ejection-type constant current sources, Yoshida teaches a power supply as the source, each having an output electrically connected in series with a connection terminal for the electric conductor 10.

However, Yoshimura teaches (figure 1, column 4, lines 60-61) using a constant current source 5 and forming polymerization layer (organic semiconductor) 14 on the dielectric 13 coated anode 12 (3).

Since both Yoshimura and Yoshida teach the device above, it would have been obvious to have incorporated the above features of Yoshimura in Yoshida because the constant source/diode would limit the current to a predetermine constant value for the deposition process.

The combination of Yoshimura and Yoshida fails to teach two or more current ejection-type constant current sources.

However, Kamigawa teaches (figure 5, column 6, lines 41-43) two or more current ejection-type constant current sources (diodes 50 and 51) each having an

output electrically connected in series with a connection terminal for the electric conductor 31/211.

Since Kamigawa in combination with Yoshimura and Yoshida teach the device above, it would have been obvious to have incorporated the above features of Kamigawa in the combination of Yoshimura and Yoshida for the benefit reducing leakage current.

Regarding claim 2, Yoshida teaches (figures 8 and 2-7, ¶¶ 37-41) a jig for producing capacitors, which is used for forming a semiconductor layer 3 by means of energization on two or more electric conductors 10 each having formed on the surface thereof a dielectric layer 2, but fails to explicitly show the jig comprising diodes, and two or more current ejection-type constant current sources each having an output electrically connected in series with a connection terminal for the electric conductor 10.

However, Yoshimura teaches (figure 1, column 4, lines 60-61) using a constant current source 5 and forming polymerization layer (organic semiconductor) 14 on the dielectric 13 coated anode 12 (3).

Since both Yoshimura and Yoshida teach the device above, it would have been obvious to have incorporated the above features of Yoshimura in Yoshida because the constant source/diode would limit the current to a predetermine constant value for the deposition process.

The combination of Yoshimura and Yoshida fails to teach two or more current ejection-type constant current sources.

However, Kamigawa teaches (figure 5, column 6, lines 41-43) the jig comprises diodes 50, 51 each having a cathode connected with each connection terminal of the electric conductors and each having an anode electrically connected to each other, and two or more current ejection-type constant current sources (diodes 50 and 51) each having an output electrically connected with a connection terminal for the electric conductor 31/211.

Since Kamigawa in combination with Yoshimura and Yoshida teach the device above, it would have been obvious to have incorporated the above features of Kamigawa in the combination of Yoshimura and Yoshida for the benefit reducing leakage current.

Regarding claim 3, Kamigawa teaches (figure 5, column 6, lines 41-43) the current ejection-type constant current sources are constituted by two or more current regulating diodes 50, 51 with respective anodes being electrically connected and each cathode serving as an output.

Regarding claim 4, Kamigawa teaches (figure 5, column 6, lines 41-43) the connection terminal for the electric conductor 31/211 and the output of the current ejection-type constant current source 50, 51 are electrically connected through a cable.

Regarding claim 5, Kamigawa teaches (figure 5, column 6, lines 41-43) the jig comprises a terminal to which respective anodes of the current regulating diodes 50, 51 are electrically connected.

Regarding claim 6, Kamigawa teaches (figure 5, column 6, lines 41-43) the jig further comprises diodes (another set of diodes 50, 51) with each cathode being



connected to the connection terminal of each electric conductor 31/211 and comprises a terminal to which respective anodes of the diodes are electrically connected.

Regarding claim 7, Kamigawa teaches (figure 5, column 6, lines 41-43) the connection terminal for the electric conductor has a socket structure 212.

Regarding claim 10, Kamigawa teaches (figure 5, column 6, lines 41-43) the connection terminal for the electric conductor has a comb shape.

7. Claims 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (US 20030133256), in view of Yoshimura (US 4,864,472), and in further view of Kamigawa et al. (US 6,139,592).

Regarding claim 16, since the combination of Kamigawa, Yoshimura and Yoshida teach the device above, it would have been obvious to have used the device in a method for forming a capacitor, as it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham, 2 USPQ F.2d 1647 (1987)*.

8. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (US 20030133256), in view of Yoshimura (US 4,864,472), and in further view of Kamigawa et al. (US 6,139,592) and Fawcett et al. (US 4,192,721).

Regarding claims 8 and 9, the combination of Yoshida, Yoshimura, and Kamigawa fails to teach the connection terminal for the electric conductor is a metal sheet or a foil-like metal material.

However, Fawcett teaches (figure as described by column 9, lines 4-7; a metal cathode electrode) the connection terminal for the electric conductor is a metal sheet, or a foil-like metal material.

Since Fawcett in combination with Kamigawa, Yoshimura, and Yoshida teach the device above, it would have been obvious to have incorporated the above features of Fawcett in the combination of Kamigawa, Yoshimura, and Yoshida for the benefit improving device performance.

While not objectionable, the Office reminds Applicant that "product by process" limitations in claims drawn to structure are directed to the product, per se, no matter how actually made. *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also, *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wethheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Marosi et al.*, 218 USPQ 289; and particularly *In re Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or otherwise. Note that applicant has the burden of proof in such cases, as the above case law makes

clear. Thus, no patentable weight will be given to those process steps which do not add structural limitations to the final product. See MPEP 2113.

The language of "foil-like metal material formed by means of printing" is considered a method of forming the device of claim 1 and not limitations of the final product. Therefore, such limitations are given no patentable weight. formed by means of printing.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arman Khosraviani whose telephone number is (571)272-6402. The examiner can normally be reached Monday to Friday, 7:30a - 5:00p (Eastern Time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Loke can be reached on 571-272-1657. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Arman Khosraviani/

Examiner, Art Unit 2818

9/30/2008

Application/Control Number: 10/563,880

Page 11

Art Unit: 2818

/Steven Loke/

Supervisory Patent Examiner, Art Unit 2818